

- 1        1. A pulley system comprising:  
2                a rotating tube having first and second apertures and a passageway extending  
3                within the tube, wherein the tube is configured to receive a cord therethrough;  
4                a pulley having a channel configured to receive the cord; and  
5                means for aligning the channel of the pulley with the passageway of the tube,  
6                wherein the means for aligning is coupled to the tube and to the pulley, such that as the  
7                tube rotates the pulley moves therewith, and wherein a portion of the channel of the  
8                pulley is positioned within the tube.  
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10        2. A pulley system as recited in claim 1, further comprising a cord extending along  
11                the tube and through the first and second apertures, and wherein the second aperture is located  
12                in a sidewall of the tube.  
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14        3. A pulley system as recited in claim 1, further comprising:  
15                a second pulley having a second channel; and  
16                means for aligning the second channel with the tube.  
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18        4. A pulley system as recited in claim 1, wherein the means for aligning the  
19                channel of the pulley with the passageway of the tube comprises an arm coupled to the tube, the  
20                pulley being rotatably mounted on the arm.  
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1       5.     A pulley system comprising:  
2               a rotating tube having first and second apertures and a passageway extending  
3               within the tube, wherein the tube is configured to receive a cord therethrough;  
4               a pulley having a channel configured to receive the cord; and  
5               an arm configured to align the channel of the pulley with the passageway of the  
6               tube, wherein the arm is coupled to the tube and to the pulley such that as the tube  
7               rotates the pulley moves therewith, and wherein a portion of the channel of the pulley is  
8               positioned within the tube.

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10       6.     A mechanism as recited in claim 5, wherein the arm is an articulating arm of an  
11               exercise device.

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13       7.     A pulley system as recited in claim 5, further comprising a cord extending along  
14               the tube and through the first and second apertures, and wherein the second aperture is located  
15               in a sidewall of the tube.

1       8. A pulley system, comprising:  
2            a rotatable tube having first and second apertures, wherein the second aperture is  
3            located in a sidewall of the tube;  
4            a cord extending through the first and second apertures;  
5            a fixed pulley having a first channel corresponding to the first aperture such that  
6            the first channel receives the cord and a portion of the cord is located within a  
7            passageway of the tube; and  
8            a selectively orientable pulley having a second channel configured such that the  
9            second channel receives the cord.

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11       9. A pulley system as recited in claim 8, wherein the second pulley is selectively  
12           orientable with relation to the fixed pulley.

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14       10. A pulley system as recited in claim 8, wherein a portion of the selectively  
15           orientable pulley is inserted into the second aperture to align the second channel with the  
16           passageway of the tube.

1        11. A pulley mechanism comprising:  
2                a first pulley;  
3                a second pulley;  
4                a tube having first and second apertures, wherein the second aperture is located  
5                in a sidewall of the tube;  
6                an arm coupled to the tube at one end, the other end of the tube being pivotably  
7                coupled to a support, the first pulley also being coupled to the support, such that a cord  
8                extends along the first pulley, through the first aperture of the tube, out the second  
9                aperture of the tube and along the second pulley.

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11        12. A mechanism as recited in claim 11, wherein at least a portion of the second  
12                pulley is located within the second aperture to align a channel of the second pulley with a  
13                passageway of the tube.

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1           13. An exercise device, comprising:  
2           a support; and  
3           at least one exercise station coupled to the support, wherein the exercise station  
4           includes a pulley mechanism, the pulley mechanism comprising:  
5           a tube having a first aperture, a second aperture located in a sidewall, and  
6           a passageway extending therebetween, the tube being movably coupled to the  
7           support; and  
8           a pulley having a first channel corresponding to the first aperture such  
9           that the first channel receives a cord and a portion of the cord is located within a  
10           passageway of the tube; and  
11           a second pulley having a second channel corresponding to the second  
12           aperture such that the second channel receives the cord and such that the cord is  
13           essentially unaffected as the second pulley is reoriented from a first position to a  
14           second position.

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16           14. An exercise device as recited in claim 13, wherein the exercise station includes a  
17           plurality of selectable positions.

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19           15. An exercise device as recited in claim 13, wherein the mechanism includes an  
20           arm that is pivotally coupled to the support.

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22           16. An exercise device as recited in claim 13, wherein a first end of the cord is  
23           coupled to a load and the second end of the cord is coupled to a handle.

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2       17. An exercise device as recited in claim 13, wherein when the tube rotates, the  
3 tension of the cord is substantially unaffected.  
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1           18. An exercise device, comprising:

2            a resistance assembly;

3            a vertical support;

4            an exercise station movably coupled to the vertical support, the exercise station

5           comprising:

6            a tube rotatably coupled to the vertical support, the tube having a first

7           aperture, a second aperture and a passageway extending therebetween, the second

8           aperture extending through a sidewall of the tube;

9            a first pulley rotatably coupled to the vertical support, the first pulley

10          having a channel corresponding to the first aperture of the tube;

11          an arm rotatably coupled to the tube;

12          a second pulley rotatably coupled to the arm, the second pulley having a

13          channel corresponding to the second aperture of the tube, wherein a portion of a channel

14          of the second pulley is positioned within the second aperture; and

15          a cord extending through the first and second apertures, a first end of the

16          cord being coupled to the resistance assembly, a second end of the cord being

17          coupled to a handle configured to be grasped by a user, and an intermediate

18          portion of the cord extending between the first and second pulleys, wherein the

19          extension arm is selectively positioned between a first and second position.

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21           19. A pulley system as recited in claim 18, wherein as the tube rotates, the length of

22          the cord does not vary substantially.

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1           20. A pulley system as recited in claim 18, wherein the resistance assembly  
2 comprises a weight stack comprising a plurality of selectable weights.  
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1           21. A pulley system comprising:

2           a rotating tube having first and second apertures and a passageway extending  
3           within the tube, wherein the tube is configured to receive a cord therethrough;

4           a pulley having a channel configured to receive the cord; and  
5           means for aligning the channel of the pulley with the passageway of the tube,  
6           wherein the means for aligning is coupled to the tube and to the pulley, such that as the  
7           tube rotates the pulley moves therewith, and

8           wherein the means for aligning the channel of the pulley with the passageway of  
9           the tube comprises an arm coupled to the tube, the pulley being rotatably mounted on  
10           the arm.

1           22. A pulley mechanism comprising:  
2            a first pulley;  
3            a second pulley;  
4            a tube having first and second apertures and a passageway extending through the  
5            tube;  
6            an arm coupled to the tube at one end, the other end of the tube being pivotably  
7            coupled to a support, the first pulley also being coupled to the support, such that a cord  
8            extends along the first pulley, through the first aperture of the tube, out the second  
9            aperture of the tube and along the second pulley.

1           23. An exercise device, comprising:

2           a support; and

3           at least one exercise station coupled to the support, wherein the exercise station  
4           includes a pulley mechanism, the pulley mechanism comprising:

5           a tube having a first aperture, a second aperture and a passageway  
6           extending therebetween, the tube being movably coupled to the support; and

7           a pulley having a first channel corresponding to the first aperture such  
8           that the first channel receives a cord and a portion of the cord is located within a  
9           passageway of the tube; and

10           a second pulley having a second channel corresponding to the second aperture  
11           such that the second channel receives the cord and such that the cord is essentially  
12           unaffected as the second pulley is reoriented from a first position to a second position.